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BUCKET NO.: 2002.01.005.WS0
Customer No. 23990

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Purva R. Rajkotia
Serial No.: 10/028,571
Filed: December 20, 2001
For: SYSTEM AND METHOD FOR LOCATING A MOBILE
STATION IN A WIRELESS NETWORK
Group No.: 2617
Examiner: Eliseo Ramos-Feliciano

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

Sir:

The undersigned hereby certifies that the following documents:

1. Appellant's Reply Brief Under 37 C.F.R. § 41.41; and
2. A postcard receipt

relating to the above application, were deposited as "First Class Mail" with the United States Postal Service, addressed to Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 10, 2006.

Date: Oct. 10, 2006

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Date: 10 Oct. 2006

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APPELLANT'S REPLY BRIEF UNDER 37 C.F.R. § 41.41

This Appellant's Reply Brief Under 37 C.F.R. § 41.41 ("Reply Brief") is filed in response to the Examiner's Answer, which was mailed in this Appeal on August 9, 2006.

Arguments in Response to the Examiner's Answer

The Appellant submits that the combination of Innes, Admitted Prior Art and Bevan fails to teach every element of the Appellant's claimed invention. Furthermore, a person of ordinary skill in the art would have had no expectation of success in the combination of references. As a result, the Examiner has failed to establish a *prima facie* case of obviousness.

Failure to Teach Every Element of the Claimed Invention

Claim 31 recites adjusting a value of a two way travel time to correct for signal conditions causing a time difference in arrival of a range signal at a base station. Independent Claims 38, 45, 53 and 56 recite an analogous limitation.

The Examiner acknowledges in the Examiner's Answer that Innes and the Admitted Prior Art fail to teach this limitation, but at page 7, first paragraph, of the Examiner's Answer, the Examiner asserts that Bevan discloses a method and apparatus for adjusting a value of a travel time to correct for signal conditions causing a time difference in arrival of a range signal at a base station, citing column 2, lines 6-24, and column 6, lines 20-24. The Appellant respectfully submits that the Examiner mischaracterizes the teaching of Bevan.

Bevan describes a system that locates the position of a mobile station by (1) measuring a round-trip delay to determine a mobile station's distance from a base station and (2) estimating a bearing from the base station to the mobile station using a direction finding antenna. *See Bevan: col. 1, lines 24-30 and 65-67.* The passages relied upon by the Examiner relate to compensating for

errors arising in the estimation of the bearing, or direction, of the mobile station, not to errors in the measured round-trip delay, or distance, of the mobile station.

In fact, having acknowledged at column 1, lines 40-50, that errors may arise in estimating the range of a received signal source, Bevan contains no teaching whatsoever of correcting for such errors. Instead, Bevan teaches only techniques of correcting errors unique to direction-finding antennas. As such, the combination of Innes, Admitted Prior Art and Bevan fails to teach every element of the Appellant's claimed invention.

No Reasonable Expectation of Success

The Appellant submits that Bevan is silent on correcting errors in a measured round-trip delay because the error correction schemes of the Bevan reference are not capable of application to the measurement of round-trip delay. Instead, the schemes taught by Bevan are uniquely suited to mathematical techniques Bevan uses to determine a bearing of a mobile station relative to a base station from signals received at a direction-finding antenna array.

In the Examiner's Answer, the Examiner cites Bevan, subsection starting at column 13, line 62—this is a description of how to design an array antenna with non-uniform array element spacing. The Examiner also cites the subsection starting at column 14, line 45—this section describes Doppler frequency correction for an antenna with a non-uniformly spaced array of elements. The Examiner relies upon subsections beginning in column 9 at lines 16 and 54—these describe methods for applying a phase-rotation correction to complex phasors obtained from waveform samples across antenna array elements. Similarly, the subsection starting at column 11, line 45, relied upon by the

Examiner, describes a method of combining consecutive samples to reduce the effect of Doppler shift on a discrete Fourier transform of the sample values.

The Applicant submits that the error compensation techniques taught in Bevan are simply unsuited for application to the round-trip delay technique of determining the distance of a mobile station from a base station. As such, the person of skill in the art would have no reasonable expectation of success in applying the techniques of Bevan to the combination of Innes and Admitted Prior Art.

For these reasons, the Appellant submits that the combination of Innes, Admitted Prior Art and Bevan fails to teach every element of the Appellant's claimed invention. Also, a person of ordinary skill in the art would have had no expectation of success in the combination of references. As a result, the Examiner has failed to establish a *prima facie* case of obviousness. The Appellant respectfully requests that the final rejection of Claims 31-60 be withdrawn and that Claims 31-60 be allowed.

SUMMARY

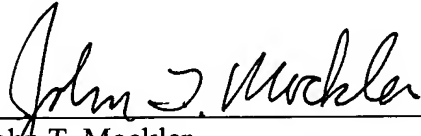
For the reasons given above, the Appellants respectfully request reconsideration and allowance of the claims and that this patent application be passed to issue.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Munck Butrus Deposit Account No. 50-0208.

Respectfully submitted,

MUNCK BUTRUS, P.C.

Date: 10 Oct, 2006



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